

# **Plaintiffs' Exhibit 116**

## **(Redacted)**

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF VIRGINIA  
ALEXANDRIA DIVISION**

United States of America, *et al.*,

Plaintiffs,

v.

Google LLC,

Defendant.

Case No. 1:23-cv-00108-LMB-JFA

Hon. Leonie H. M. Brinkema

**EXPERT REBUTTAL REPORT OF ROBIN S. LEE, PHD**

**February 13, 2024**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA**

**Alexandria Division**

UNITED STATES, et al.,	)	
	)	
Plaintiffs,	)	
v.	)	No. 1:23-cv-00108-LMB-JFA
	)	
GOOGLE LLC,	)	
	)	
Defendant.	)	

**DECLARATION OF ROBIN S. LEE  
IN SUPPORT OF PLAINTIFFS' OPPOSITION TO  
GOOGLE'S MOTION FOR SUMMARY JUDGMENT**

Robin S. Lee, PhD., being duly cautioned, declares as follows:

1. I am over 21 years old and am competent to testify about the matters in this Declaration based on my personal knowledge.
2. Attached hereto as Exhibit A is a true and correct copy of the December 22, 2023, Expert Report of Robin S. Lee, PhD. Attached hereto as Exhibit B is a true and correct copy of the February 13, 2024, Expert Rebuttal Report of Robin S. Lee, PhD, along with associated errata. Attached hereto as Exhibit C is a true and correct copy of the March 4, 2024, Expert Supplemental Report of Robin S. Lee, PhD.
3. I authored the attached Expert Reports identified in Item (2) above and understood at the time I signed them that they were being prepared for use in this litigation. I am prepared to testify at trial, under oath, to the matters set forth in these reports. My statements set forth in these reports, as modified by associated errata, are true and correct to the best of my knowledge.
4. The exhibits attached to the reports described in Item (2) are true and correct copies.

I declare under penalty of perjury that the foregoing statements in this Declaration are true and correct.

Dated: *May 10, 2024*

Signed: 

Robin S. Lee, PhD.

County and State: *SUFFOLK COUNTY, MA*

my opinions that publisher ad servers, ad exchanges, and advertiser ad networks for open-web display advertising comprise relevant antitrust product markets.

#### **IV.A.1. Relevant antitrust product markets do not contain all substitutes for a given set of products**

- (61) Relevant markets identify products over which market power can be profitably exercised. Importantly, relevant markets will not generally contain *all potential substitutes or constraints for a product*. As I noted in my initial report,

The key consideration when defining markets for monopolization claims is whether those excluded substitutes pose a *significant enough competitive constraint* on products contained within the market so as to prevent a hypothetical monopolist of those products from exercising market power and charging prices above competitive levels. By excluding alternative products that would be unlikely to constrain a monopolist (e.g., because a sufficient number of consumers view those alternatives as poor substitutes for products within the market), market definition facilitates the calculation of market shares and concentration measures that do not overstate the competitive significance of distant substitutes.<sup>106</sup>

- (62) Dr. Israel and I agree on some aspects of market definition. In particular, he and I agree that market definition for this case focuses on [REDACTED]

[REDACTED]

- (63) Despite this common ground, the way in which Dr. Israel proceeds [REDACTED]

[REDACTED]

- (64) [REDACTED] For monopolization claims, market definition identifies a set of products over which a

<sup>106</sup> Lee Initial Report, § IV.A.2.

[REDACTED]

hypothetical monopolist could possess and exercise significant market power and focuses attention on where the competitive effects of particular conduct are most likely to occur. A standard approach is to begin with the product(s) under scrutiny (here, particular ad tech products offered by Google) and, if appropriate, the most meaningful competitive constraints and products over which competitive concerns may arise. One then evaluates whether this set of products could profitably be monopolized; if not, the market is then expanded, and the HMT performed again. Proceeding in this fashion recognizes the fact that it is unnecessary to control (or eliminate) *all* potential constraints or substitutes for a monopolist to exercise significant market power. ■

- (65) As noted above, a relevant market will often exclude products that *some* customers view as substitutes for products within the market.<sup>111</sup> For example, in my opening report I discussed the example of a hammer and a screwdriver. A screwdriver and screw may accomplish some of the same tasks as a hammer and nail (e.g., hanging a picture on a wall) but there are other tasks that hammers are uniquely suited for that a screwdriver could not as easily substitute for.<sup>112</sup> A monopolist of hammers could likely impose a small but significant price increase on hammers without many people switching to screwdrivers.
- (66) In this matter, the products in question are the tools used by advertisers and open-web publishers to transact web display advertising. The key question is whether excluded substitutes prevent a hypothetical monopolist of products within a relevant product market from exercising market power.

(67) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

As I discussed in my opening report (Lee Initial Report, ¶ 247, 249–250), an assessment of market definition necessarily involves an analysis of the relative strength of competitive constraints, and typically focuses on the most meaningful of those.

<sup>111</sup> United States Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, August 19, 2010 (hereinafter, “2010 HMG”), § 4.1.1 (“Groups of products may satisfy the hypothetical monopolist test without including the full range of substitutes from which customers choose. The hypothetical monopolist test may identify a group of products as a relevant market even if customers would substitute significantly to products outside that group in response to a price increase.”). *See also*, Lee Initial Report, ¶ 256, 2023 HMG § 4.3.

<sup>112</sup> Lee Initial Report, ¶ 259.

[REDACTED]

- (68) However, such a market (even though passing the HMT) would not necessarily be an appropriate relevant antitrust product market for evaluating a monopolization claim over hammers. The reason is that such a broad market, by including very distant substitutes, would more likely obscure rather than illuminate the ability of a hypothetical monopolist of hammers to exercise market power. [REDACTED]

[REDACTED]

- (69) The flaws in Dr. Israel's approach are compounded by [REDACTED]

- (70) [REDACTED]

- (71) That is not to say that Google does not compete with those firms in some line of business, or that these other firms do not offer products that are a competitive constraint to some degree on Google's ad tech products—the relevant question is whether any excluded product is a significant enough

[REDACTED]

competitive constraint to prevent Google (or a hypothetical monopolist) from exercising significant market power over publisher ad servers, ad exchanges, or advertiser ad networks for open-web display advertising. [REDACTED]

#### IV.A.2. Assessments of substitution among ad tech products at prevailing prices can succumb to the “Cellophane Fallacy”

(72) [REDACTED] However, as is commonly understood by economists, assessing substitutability between products for the purposes of market definition when it is possible that prevailing prices already exceed competitive prices risks overstating the significance of more distant substitutes.<sup>117</sup> This is because at elevated prices, customers would more likely substitute to alternatives that would not otherwise have been close substitutes at more competitive prices. Ignoring this point is commonly known as the “Cellophane Fallacy,” and can lead to markets that are misleadingly broad for the purposes of evaluating market power.<sup>118</sup>

(73) Dr. Israel argues [REDACTED] Although customer substitution is important to consider, for the purposes of the HMT, it is substitution at competitive price levels that informs whether a hypothetical monopolist can exercise market power. When there is valid concern (and direct evidence) that prices for products have already been subject to the exercise of significant market power, there are categories of evidence other than substitution patterns at prevailing prices that inform whether a market contains enough close substitutes to pass the HMT.<sup>120</sup>

<sup>116</sup> Lee Initial Report, ¶ 247. [REDACTED]

<sup>117</sup> Lee Initial Report, ¶ 251 (“[C]ontrast, for monopolization claims, the HMT considers customer substitution patterns at the benchmark of competitive prices. This is because an important concern is that *prevailing prices may already reflect the exercise of substantial market power by the alleged monopolist*. At such elevated prices, consumers would likely substitute away from the alleged monopolist’s products to alternatives were the alleged monopolist to impose a further price increase—even if those alternatives are not close substitutes for the alleged monopolist’s products *were the monopolist’s products priced more competitively*. When there is a concern that prevailing prices (or product qualities) depart significantly from those that would otherwise obtain in a more competitive environment, relying on observed customer substitution patterns at existing price or quality levels risks overstating the competitive significance of more distant substitutes that customers only turn to after a set of products has already been monopolized.”). (emphasis in original).

<sup>118</sup> Lee Initial Report, n. 340.

<sup>120</sup> Lee Initial Report, ¶¶ 253–254.

V.C.2.a. [REDACTED]

(458) [REDACTED]  
[REDACTED]  
[REDACTED]

(459) [REDACTED]  
[REDACTED]  
[REDACTED]

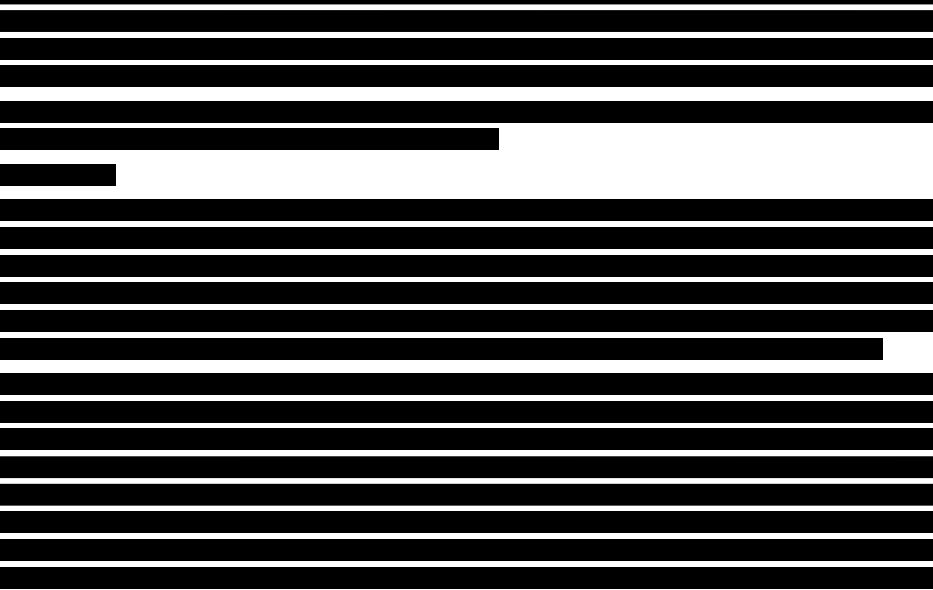
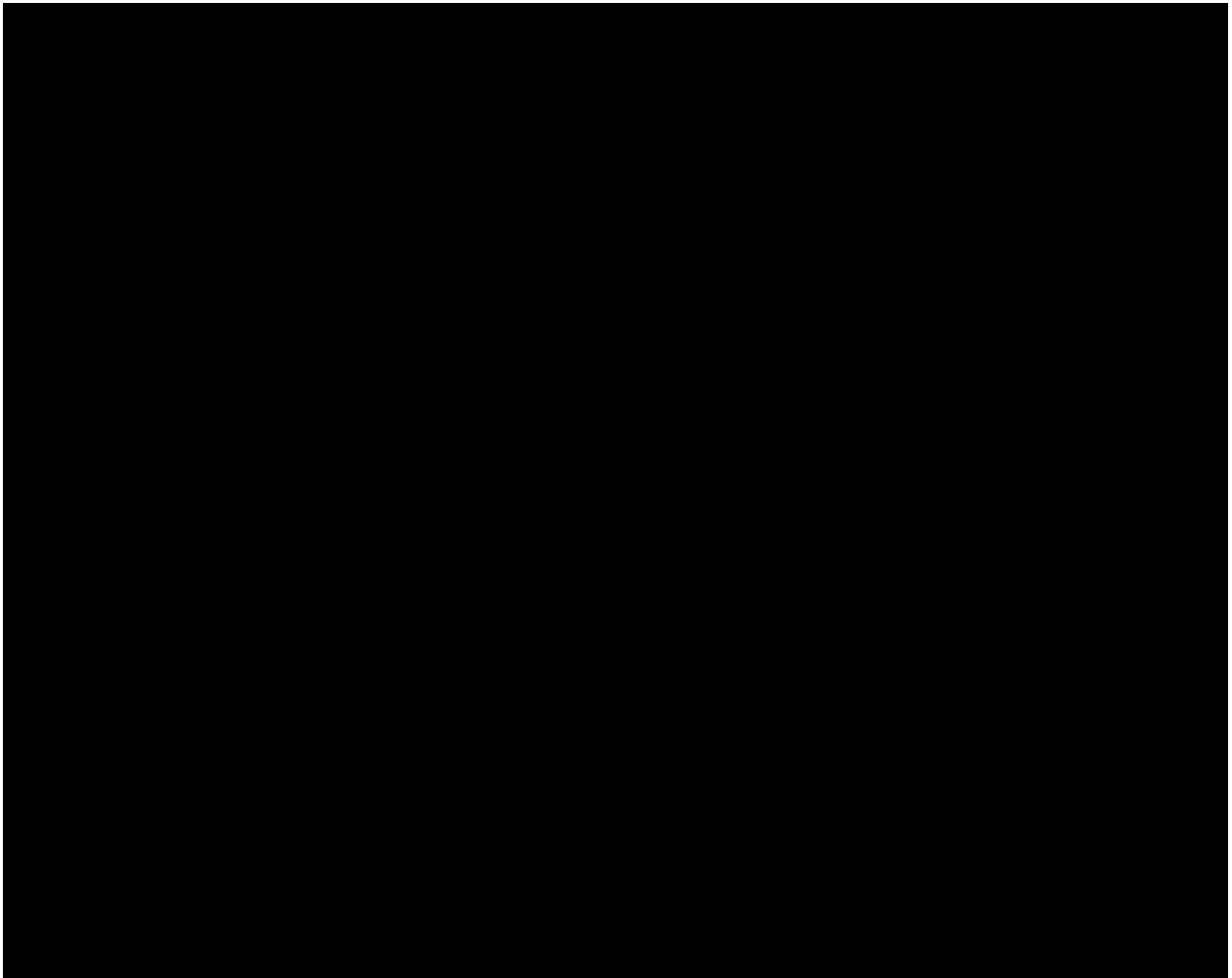




Figure 29. [REDACTED]  
[REDACTED]



(460) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

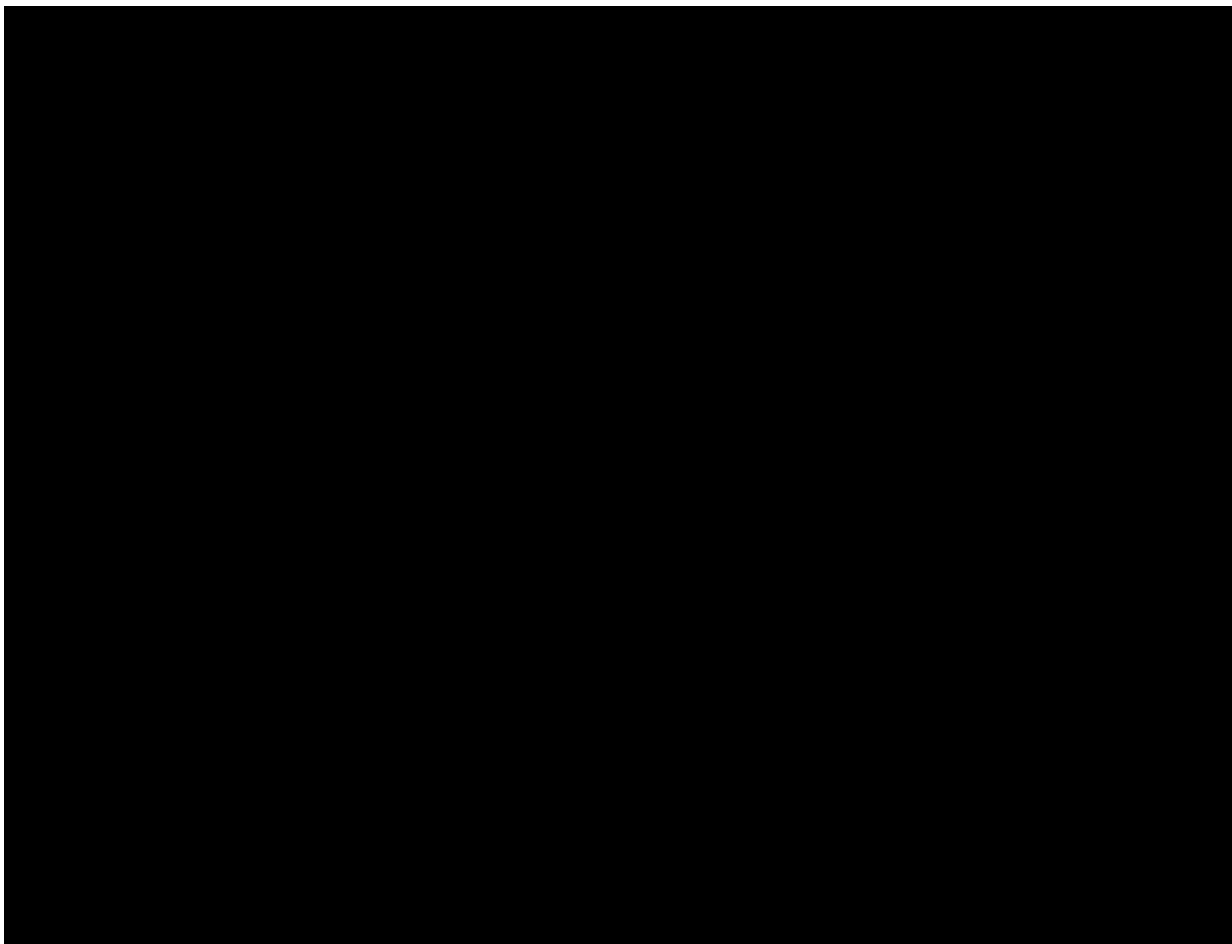
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[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

(461) [REDACTED]  
[REDACTED]  
[REDACTED]

(462) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

**Figure 30.** [REDACTED]  
[REDACTED]



Expert Rebuttal Report of Robin S. Lee, PhD

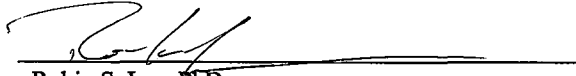
  
\_\_\_\_\_  
Robin S. Lee, PhD

February 13, 2024  
Date

**Errata for the February 13, 2024 Expert Rebuttal Report of Robin S. Lee, PhD**

<b>Location</b>	<b>Original Text</b>	<b>Corrected Text</b>
Paragraph 35	In this matter, the strength and importance of indirect effects for customer decisions will tend to vary across ad tech products <i>and</i> by direction	In this matter, the strength and importance of indirect <b>network</b> effects for customer decisions will tend to vary across ad tech products <i>and</i> by direction
[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
Paragraph 176	With respect to the first point, as I explained above in Section IV.A.3, simply using two different sales channels does not equate to close substitution between them	With respect to the first point, as I explained above in Section IV.A.4, simply using two different sales channels does not equate to close substitution between them
Paragraph 257	Paragraph 257 is formatted as a paragraph.	For clarity, Paragraph 257 is a block quote from the document cited in footnote 417. For convenience, no change is made to the paragraph numbers.
[REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]  [REDACTED] [REDACTED]
Heading IV.E.3	<b>IV.E.3</b> A single market for all ad tech products obscures rather than illuminates the relevant competition	Heading IV.E.3 should read as corrected: “ <b>IV.F.1</b> A single market for all ad tech products obscures rather than illuminates the relevant competition”
Heading IV.E.4	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

Heading IV.E.5	[REDACTED]	[REDACTED]
Heading IV.F	<b>IV.F</b> Relevant geographic markets for publisher ad servers, ad exchanges, and advertiser ad networks	Heading IV.F should read as corrected: “ <b>IV.G</b> Relevant geographic markets for publisher ad servers, ad exchanges, and advertiser ad networks”
Heading IV.F.1	[REDACTED]	[REDACTED]
Heading IV.F.2	<b>IV.F.2</b> My conclusions do not change whether the product markets are analyzed on a worldwide or US	Heading IV.F.2 should read as corrected: “ <b>IV.G.2</b> My conclusions do not change whether the product markets are analyzed on a worldwide or US <b>basis</b> ”
Paragraph 345	Paragraph 345 is formatted as a paragraph.	For clarity, Paragraph 345 is a block quote from the document cited in footnote 532. For convenience, no change is made to the paragraph numbers.
Paragraph 436	[REDACTED]	[REDACTED]
Paragraph 493	Paragraph number 493 is formatted as red text.	As corrected, paragraph number 493 is properly formatted as black text.
Appendix A		Appendix A begins with “In addition to the materials listed below, I incorporate by reference all materials cited within the footnotes in this report and in my initial report and the accompanying back up materials.”
Appendix A.4	[REDACTED]	[REDACTED]
Footnote 363	I discuss the flaws with this market below in Section IV.G.	I discuss the flaws with this market below in Section <b>IV.F</b> .
Footnote 1022	[REDACTED]	[REDACTED]

  
Robin S. Lee, PhD

MARCH 8, 2024  
Date